

Some users of our Software

EHS Software has been used by numerous individuals, Universities, Fortune 500 Companies, and emerging companies to develop everything from products for Industrial Control Applications to use on Space Shuttle projects. The following are some of the uses of our software:

Universities

Annapolis
UCSC Observatory
Harvard Medical School
Lawrence Livermore Labs.
University of the Pacific
Clemson University
Wake Forest University
Kansas State University
University of Penn.
Arizona State Univ.
University of Alberta
University of Waterloo
University of Manitoba
University of Rochester
New Zealand Dairy Institute
Georgia State University
Ohio State Univ.
Northwestern Univ.
Case Western Reserve Univ.
University of Puerto Rico
Vanderbilt University
Andrews University
University of Southern California
University of North Carolina
University of Iowa
University of Michigan
Brock University
University of Nebraska
St. Francis Xavier Univ.
Purdue University
NC State University
W. Va. University
University of Konstanz (W. G.)
University of Illinois
University of Essex (England)
Medical College of Georgia

Companies

DuPont
Shell Oil
General Electric
IBM
Commodore Bus. Mach.
Apple Computer
Chevron Research
NASA
Rockwell International
Teledyne
Dow Jones & Co.
US Dept. of Commerce
National Research Council
Wyle Labs
Hughes Tool
Aramco
General Motors
Essex Group
Naval Surface Weapons Center
Aerospace Corp.
Robertshaw Controls
ATARI Inc.
Westinghouse Broadcasting Co.
Bethesda Medical Center
AT&T
Bendix Corp.
Naval Air Development Center
Fluidyne Instrumentation
National Bureau of Standards
Manila Cordage Co.
Tektronic
RCA
Smith Kline & French Labs.
Hercules Inc.
Salk Institute
Synertek

Eastern House Software
3239 Linda Drive
Winston-Salem, NC 27106

*This contains the MAE Software Development
specifications that you requested!*

"The Compatible Assembler/Text Editor"

The only disk assembler that was adapted for all the major 6502 microcomputers. Thus you can be assured that you have a "compatible" software package. You can also feel assured that this software will function as described because it has been available for several years and has been extensively debugged. MAE is a machine language development aid for the following computers:

Commodore:

2001-32K (3.0 Roms) and 2040, 4040, 8050 disk, or CGRS PEDISK II.
4001-32K (4.0 Roms) and 2040, 4040, 8050 disk, or CGRS PEDISK II.
(Also 2001 with upgrade 4.0 Roms)
8032 and 2040, 4040, 8050 disk, or CGRS PEDISK II.
Super PET and 2040, 4040, 8050 disk, or CGRS PEDISK II.

Apple][:

48K Apple][or Plus and Disk II (DOS 3.2 or 3.3).

Atari:

32K Atari and Atari 810 Disk.

NOTE: Please specify computer and disk drive when ordering.

MAE contains the most powerful 6502 assembler and text editor currently on the market. If you are looking for a professional development tool that can greatly increase the productivity of your programming staff, then MAE may be the answer. Check these features:

GENERAL

- MAE was written entirely in machine language - not in Basic like some assemblers we know of. Thus you get very fast and accurate assemblies.
- PET and APPLE versions coexist with Basic.
- 38 error codes, 27 commands, 26 pseudo ops, and 5 conditional assembly operators.
- Has built in software UART (110 - 9600 baud) which can drive an external device (PET and APPLE versions only). Source for the UART program is provided.
- All commands oriented for disk operation.
- Macro, Conditional Assembly, and Interactive Assembly capability.
- Optionally creates executable object code in memory or relocatable object code on disk.
- ATARI and PET versions include Machine Language Monitor for debugging purposes.

See Reviews in Compute and Kilobaud!

THE MONKEY WRENCH™ FOR ATARI

\$49.95



A BASIC and machine language programmers aid for 800 users. Plugs into right slot and works with ATARI BASIC. Adds 9 new direct mode commands including auto line numbering, delete lines, change margins, memory test, renumber BASIC, hex/dec conversion, cursor exchange, and machine language monitor.

CASSETTE BASED MACRO ASSEMBLER/EDITOR

\$49.95

"The Compatible Assembler/Editor"

- Macros, Conditional Assembly, String search and/or replace, standard mnemonics. (Ex: LDA (LABEL), Y)
- Long labels, MOVE, COPY, AUTO, DELETE, PUT, GET, etc.

EPROMS - HIGH QUALITY, NOT JUNK

Use with PET, APPLE, ATARI, SYM, AMM, etc. 450 ns. \$6.50 for 2716, \$12.50 for 2532.

EPROM PROGRAMMER FOR PET AND ATARI COMPUTERS

The BRANDING IRON is an EPROM programmer especially designed for PET and ATARI computers. Programs 2716 and 2532 type EPROMs. The PET version plugs into the cassette and I/O port and comes with software which adds the programmer commands to the PET monitor. The ATARI version plugs into controller jacks and comes with a full fledged machine language monitor which provides 30 commands for interacting with the computer and the BRANDING IRON.

PET - \$75.00 ATARI - \$119.95

5 1/4 INCH SOFT SECTORED DISKETTES

Highest quality. We use them on our PETs, APPLES, ATARIs, and other computers. \$22.50/10 or \$44.50/20

**PET TERMINAL SOFTWARE**

A buy you RS-232 users can't pass-up. Includes RS-232 hardware with a sophisticated software package. May be controlled via keyboard or from BASIC. A super buy. \$129.95

STARWRITER F-10 DAISY WHEEL PRINTER
PARALLEL - \$1495, RS-232 - \$1880, TRACTORS - \$210.

SIGNALMAN MARK I DIRECT CONNECT MODEM - \$89.50

Standard 300 baud, full duplex, answer/originate. Powered by long lasting 9-volt battery (not included). Cable and RS-232 connector included.

**MAE SOFTWARE DEVELOPMENT SYSTEM FOR PET, APPLE, ATARI**

\$169.95

"The Compatible Assembler"

- Professional system for development of Machine Language Programs. 31 Characters per label.
 - Macro Assembler/Text Editor for Disk-based systems.
 - Includes Word Processor for preparation of Manuals, etc.
 - Standard Mnemonics - Ex: LDA (LABEL), Y
 - Conditional Assembly, Interactive Assembly.
 - Editor has string search/search and replace, auto line numbering, move, copy, delete, u/c capability.
 - Relocating Loader to relocate object modules.
 - Designed with Human Factors Considerations.
- BEFORE YOU BUY THAT OFF-BRAND ASSEMBLER, WRITE FOR OUR FREE DETAILED SPEC SHEET.

ELSHILL EHS Management has decided to allow \$50.00 credit to ASH/TEO owners who want to upgrade to MAE. To get this credit, return ASH/TEO Manual with order for MAE.

Estimate House

3239 Linda Dr.
Winston-Salem, N.C. 27106
(919) 924-2889 (919) 748-8446
Send for free catalog!



TEXT EDITOR FEATURES

- Auto line numbering for easy source entry.
- String search command (]FIND).
- String search and replace command (]EDIT).
- String search and conditionally replace by stepping thru file and prompting user for determination of replacement (]EDIT *).
- Commands to copy and move one or more source lines (]COPY,]MOVE)
- Renumber source file command (]NUMBER).
- Command to delete one or more lines (]DELETE).
- Load and record commands (]GET,]PUT).
- Source files can also be appended to current file (]GET APPEND).
- Each source file loaded results in a status summary consisting of length in bytes plus the address range where loaded.
- Word Processor file included which adds capability to Right and Left Justify, center phrases, set margins, define text body shapes, titles, footers, link named disk files together, plus other text processing features.

ASSEMBLER FEATURES

- Labels unique up to 31 characters. User specifies maximum label length via]FORMAT command.
- Label expressions may be entered. EX: LDA TABLE-INEDX+1
- Hex, decimal, binary constants, and ascii strings may be stored.
EX: .BY 'THIS IS A TEXT STRING'
.BY %1101 \$F3 49 'ABC' MASKBYTE
- Can specify hi or lo part of label.
EX: LDA #H,OP.TABLE ;LOAD HI PART OF OP.TABLE
LDA #L,VALUE ;LOAD LO PART OF VALUE
- Free format input. Simply separate fields with one or more spaces and the fields will be automatically tabulated.
- Conditional Assembly operators: IFE, IFN, IFP, IFM, SET.
- Macro capability via .MD pseudo op (Macro Definition).
- Non-repeating label capability for macros.
- Macros can be nested.
- Both passes of assembly are accomplished automatically.
- Conditional Assembly can be incorporated within macros.
- Capability to store executable object code in memory and/or output relocatable object to disk during assembly.
- Assembler can store object code in memory at a different address from its execution address if desired (via .MC pseudo op). This is useful if object is to execute in memory space occupied by MAE.
- Can assemble source from memory or, for long programs, multiple source files from disk as follows:
.FI "MODULE1"
.FI "MODULE2"
.FI "MODULE3"

- Complete listing can be generated during assembly (]ASSM LIST) or an errors only listing can be generated. Three ways to generate an errors only assembly:
via]ASSM NOLIST command
via .LC pseudo op
via DEL or control O key during output
- Interactive Assembly feature which provides for assembler to output messages and accept input during assembly process.
EX: INPUT BEGIN ASSEMBLY ADDRESS
? 1000
- Command to output the entire symbol table or just certain types of symbols.
- Sorted symbol table.

WORD PROCESSOR FOR PREPARATION OF MANUALS, LETTERS, ETC.

- Single/double/triple/etc. spacing, left and right justification, ragged right/left margins, centering, margin control, headers, footers, printing of text in shapes, text files may be linked so that document size is limited only by the amount of disk capacity.
- STP text macros include: .LINK, .VSPACE, .Sn, .M, .NOFILL, .FF, .JU, .RR, .RL, .Ln, .C, .SWAP, .P, .T, .FOOT, .SET, and .SHAPE.
- FAST - Written entirely in Machine Language. Makes use of MAE's Text Editor for entry of word processor text and macros.

OPERATING FEATURES

- Commands may be abbreviated to first 2 characters.
- Commands, pseudo ops, and conditionals may be entered as upper or lower case characters.
- Machine language programs can be executed via]RUN command.
- User command for user created functions (]USER).
- Upper and lower boundaries for text file and symbol table assume a default size on cold entry, but can be changed or displayed via]SET command.

RELOCATING LOADER FEATURES

- Separate program from Assembler/Text Editor but is included in MAE package.
- Provides capability to quickly relocate the ASSM generated relocatable object code files in 3 separate segments:
 - 1) Program Body
 - 2) Absolute Variables
 - 3) Zero Page Variables
- One can also relocate but store the executable code at a different address.
- Included in the MAE package is an executable copy of the relocating loader. A relocatable copy of the relocating loader is also provided in the PET and APPLE versions.

MATERIAL SUPPLIED

- MANUAL = 50+ page manual with description of all commands and pseudo ops, many examples, and an example software listing of a program which illustrates the assembler format.
- DISKETTE = 5 1/4" compatible floppy diskette containing not only the MAE software but also several other useful program files.

NOTE:

COMPLETION OF ATTACHED LICENSE AGREEMENT MUST ACCOMPANY ORDER. MAE Diskette containing the Macro Assembler/Text Editor, STP Word Processor, Relocating Loader, plus other files not described here, with full documentation - \$169.95.

>>> OTHER USEFUL PRODUCTS <<<

MAE 6800 - MAE Cross Assembler for 6800 Microprocessors

A Cross Assembler version of MAE is also available. Currently EHS has available a Cross Assembler that will assemble Motorola 6800 Microprocessor programs on your PET, APPLE, or ATARI computers. The generated 6800 object code will not execute on your 6502 based computer and will have to be downloaded to a 6800 based computer for execution. MAE6800 is a way to more fully utilize your PET, APPLE, or ATARI for use with 6800 Microprocessor development.
Price = \$500.00

2716 and 2532 EPROM Programmer

An EPROM programmer for programming 2716 and 2532 EPROMs is available for PET and ATARI computers. The PET version plugs into the cassette and I/O ports and is provided with software which adds the programmer commands to the PET monitor. The ATARI version plugs into the controller jacks and is provided with a Machine Language Monitor that features 30 commands for program debugging and programming the EPROMs.
PET Version = \$75.00 ATARI Version = \$119.95

EPROMS

450 ns
2716 (2K x 8) = \$6.50
2532 (4K x 8) = \$12.50

DISKETTES

High Quality, low cost
\$22.50/10 or \$44.50/20

We sell many other items for PET, APPLE, ATARI, KIM, and SYM computers. Send Self Addressed, Stamped Envelope for catalog.

See Reviews in Compute and Kilobaud!

MAE LICENSE AGREEMENT

Eastern House Software does hereby grant to the undersigned a non-transferrable and non-exclusive license to use the software listed below with the following terms and conditions:

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A backup copy of the diskette, or cassette may be made by the Licensee in order to preserve the object media, but no copy (including original or backup) is to be used on any microcomputer other than that specified below.

This software has been extensively tested and is believed to be entirely reliable and without defects. But, it is hereby expressly agreed that Eastern House Software assumes no liability for failure of this software to perform as advertised. Eastern House Software's warranty is limited to making reasonable attempts to correct any mutually agreed upon defects.

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SOFTWARE

The above mentioned software is to be used on the following microcomputer:

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